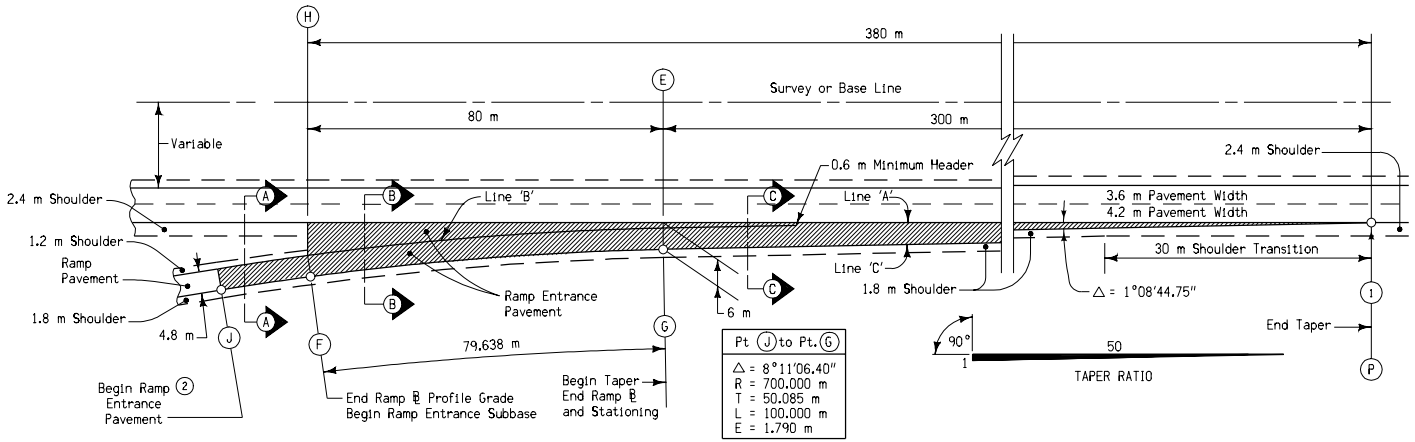
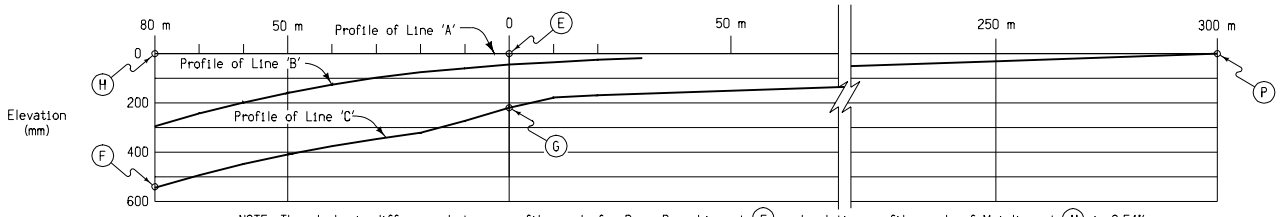


Pt (J) to Pt. (G)
△ = 8°11'06.40"
R = 700.000 m
T = 50.085 m
L = 100.000 m
E = 1.790 m



NOTE: The algebraic difference between profile grade for Ramp Base Line at (F) and relative profile grade of Mainline at (H) is 0.54%.

PROFILE

GENERAL NOTES:

Ramp entrance pavement shall be the same thickness as the mainline pavement. Ramp entrance subbase for both HMA and PCC pavement shall be the same thickness as the mainline subbase.

Ramp entrance pavement area shown by shaded area is 1663 square meters.

Special shaping of entrance area between lines A and B may be required in order to assure proper drainage.

Refer to Detail Sheet 550-5 for jointing layout.

(1) For header construction details at the beginning of taper, refer to the appropriate Typical 7101 or 7102.

(2) Refer to detail project plans for ramp alignment and superelevation data.

(3) The ramp pavement cross slope between point (J) and point (F) is determined by superelevation rotated about line "C". Refer to Standard Road Plan RP-3 and the project plans for superelevation transition requirements.

This design is based on 100 km/h design speed at "e" max = 6%.

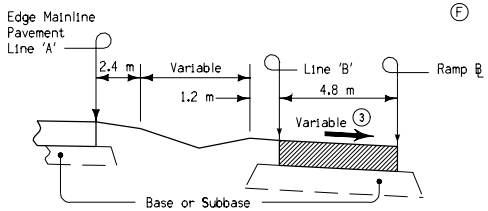
For location equivalent stations see Tabulation 101-15. Equate Point 'G' (Ramp Stationing) to Point 'E' (ML Stationing).

(H) (E)

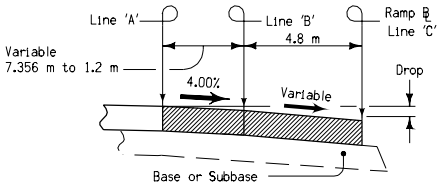
TABLE OF OFFSETS AND DROPS FOR 4.8 m RAMP TAPER

Distance From Point (E) Along Line A (m)		80	70	60	50	40	30	20	10	0	10	20	50	100	150	200	250	300
From Line 'A' To Line 'B'	Offset (m)	7.356	6.083	4.955	3.971	3.131	2.435	1.880	1.469	1.200								
	Slope (%)	← Constant 4.00% Slope →								3.64								
	Drop (mm)	294	243	198	159	125	97	75	59	44								
From Line 'B' To Line 'C'	Offset (m)	← Constant 4.8 m Offset →																
	Slope (%)	5.20	5.20	5.20	5.20	5.20	5.20	5.10	4.44	3.64								
	Drop (mm)	250	250	250	250	250	250	245	213	175								
From Line 'A' To Line 'C'	Offset (m)									6.000	5.800	5.600	5.000	4.000	3.000	2.000	1.000	0.000
	Slope (%)									3.64	3.07	3.00	← Constant 3.00% →					
	Drop (mm)	544	493	448	409	375	347	320	272	219	178	168	150	120	90	60	30	0
Distance From Point (G) Along Line C (m)		79.638	69.626	59.631	49.651	39.684	29.728	19.780	9.840	0.000								

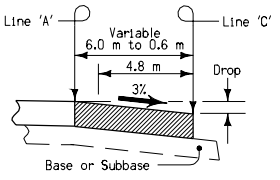
(F) (G) (P)



SECTION A-A



SECTION B-B



SECTION C-C

All dimensions given in millimeters unless noted.

METRIC VERSION

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN **RV-5**

REVISION: Equate Point 'G' to Point 'E'.	REVISION NO.
	3
William J. Stein	REVISION DATE
APPROVED BY DESIGN METHODS ENGINEER	10-21-03

ACCELERATION TAPER
FOR 4.8 m ENTRANCE RAMP